COMMAND & CONTROL PC



5.9.0.3







CLASS SCHEDULE



Overview

- What is C2PC
- Main screen

Mapping

Loading maps

<u>Overlays</u>

- Managing/Understanding overlays
- Dissemination of overlays

Trackplot

- Managing/Understanding tracks
- Plot Options
- Tailoring view/Declutter_

Name of the last

PURPOSE

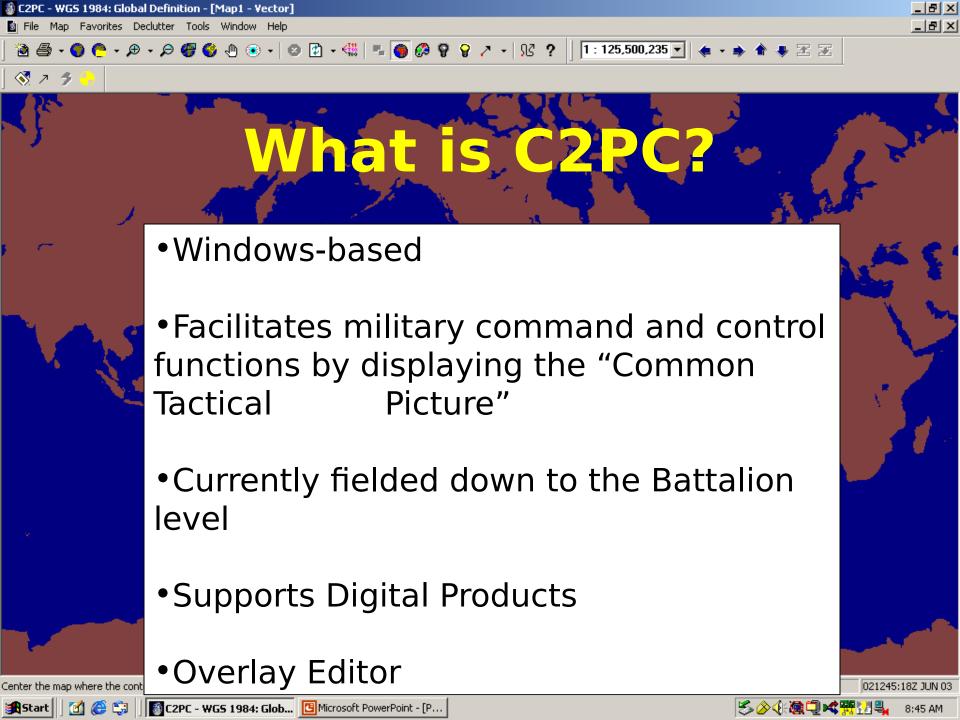


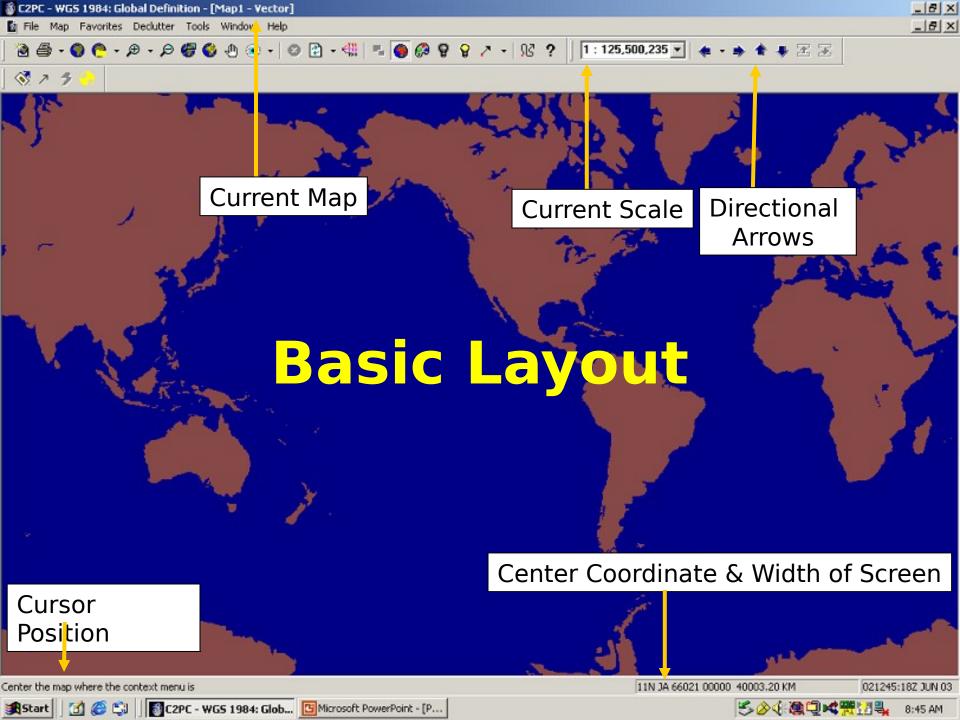
The purpose of this period of instruction is to introduce students to C2PC skills and functionality. Students will receive an explanation of

skills and functionality. Students will receive an explanation of these

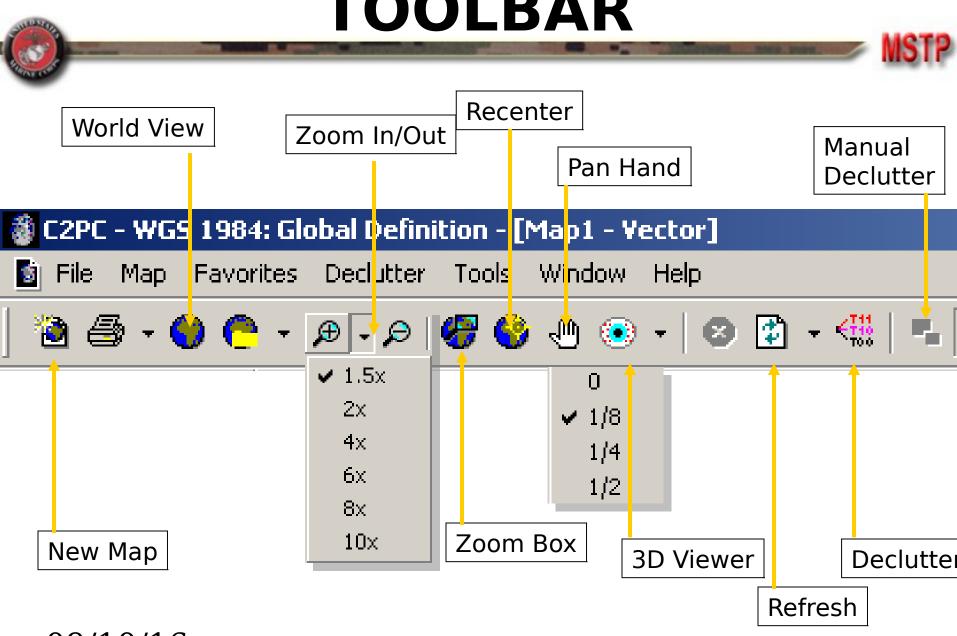
capabilities, a demonstration, and then will participate in a practical application.

The goal is to produce C2PC operators capable of using the program to execute Marine Corps oriented command and control functions.





TOOLBAR

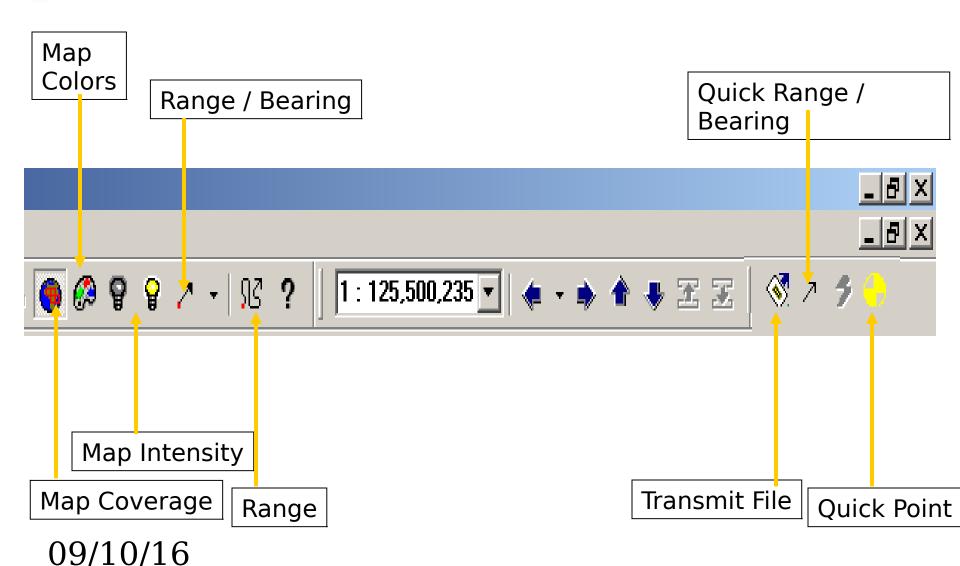


09/10/16

TOOLBAR





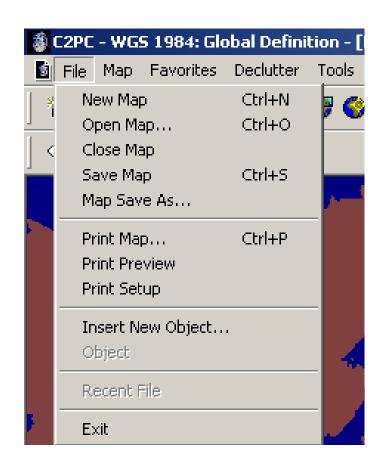




FILE PULL DOWN MENU



- Works just like any other windows File menu
- Ability to open multiple maps at once

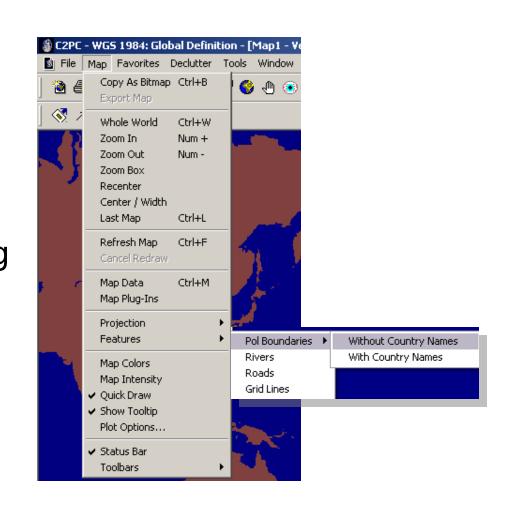




MAP PULL DOWN MENU



- A lot of the same features as the toolbars
- Ability to copy the map area for pasting into another Windows program, i.e. PowerPoint
- Turn on or off different Features



TOOLS PULL DOWN



MENU



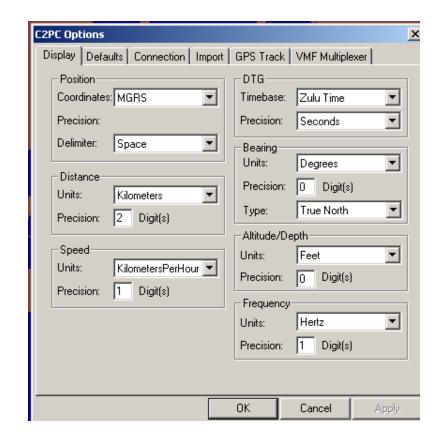
- C2PC
 Injectors/Features
- Ability to turn injectors on or off
- Ability to convert coordinates from one Datum to another







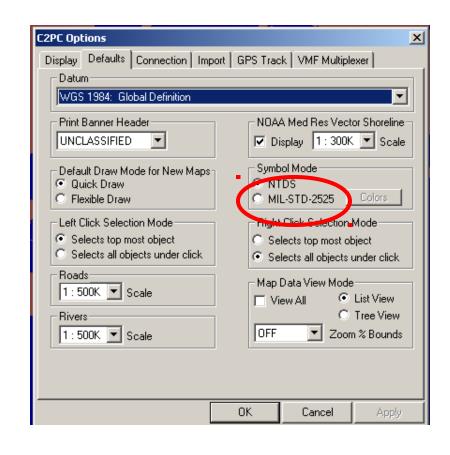
- Display tab allows you to specify:
 - Position
 - Distance
 - Speed
 - DTG
 - Bearing
 - Altitude/Depth
 - Frequency







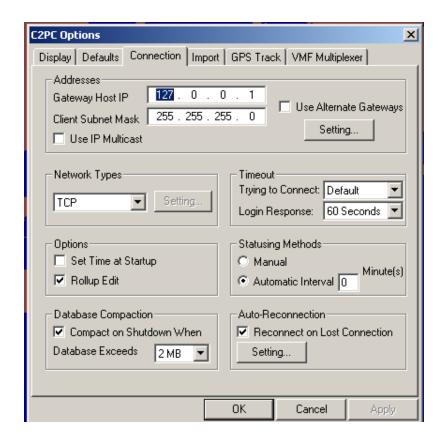
- Defaults tab allows you to adjust:
 - Datum
 - Print Banner
 - Symbol Mode
 - NTDS
 - MILSTD 2525
 - Roads/Rivers







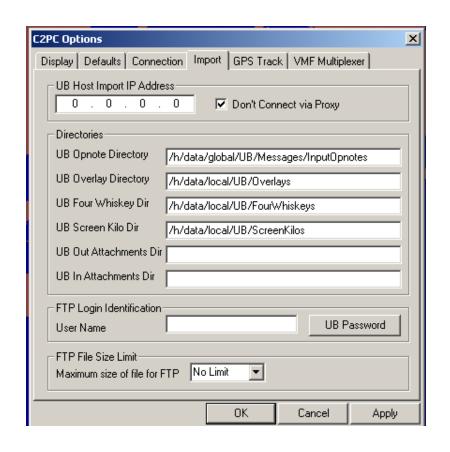
 Connection tab directs C2PC client how to connect to the C2PC Gateway

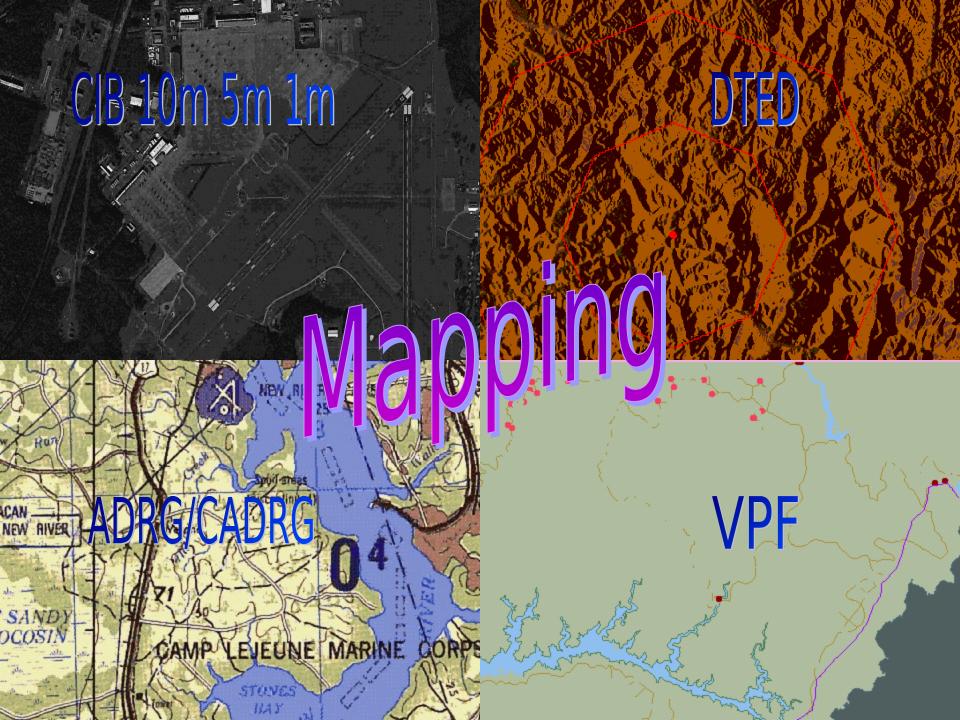






- Import tab directs
 C2PC to the UB Host
 and the information
 that it can import
 - Opnote
 - Overlay
 - Four Whiskey
 - Screen Kilo



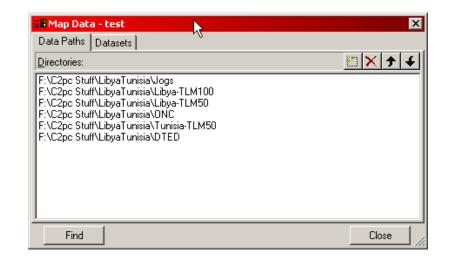




SETTING PATHS



- Setting the path for the maps directs C2PC to where the maps are located.
- The way to tell if you have map data located within a certain folder, is watch for the OK button to become active.

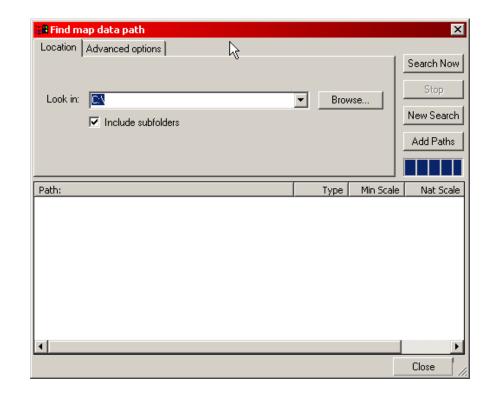




SETTING PATHS



- Browse for the maps
- Set a search area the select one or all and hit Add Paths.

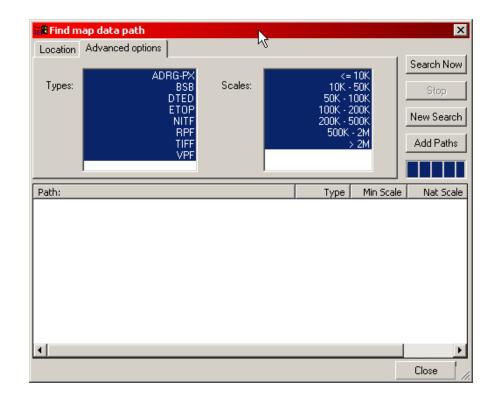




SETTING PATHS



 Advanced Options allow the user to set a criteria for the search.

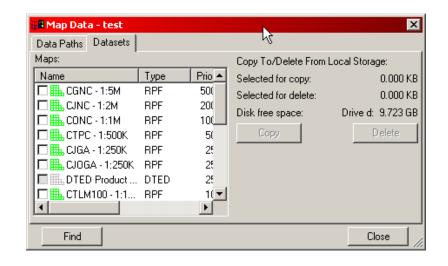


The state of the s

ACTIVATING MAPS



- Datasets tab allows you to turn on and off the desired map scale
- You can also copy certain map sheets to your local hard drive
- Double clicking on the map scale will recenter you screen to the center of those map sheets

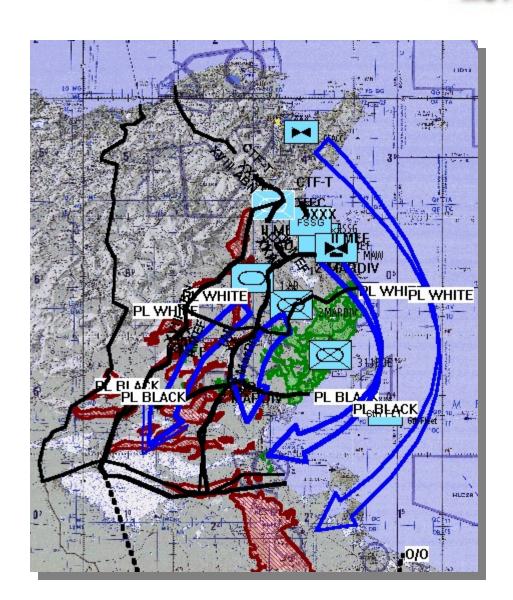


OVERLAYS





- Planning
- Future Situation
 Template
- Wargaming
- Operational Graphics



NEW OVERLAY





- Overlay can be placed in folders and filed in multiple places
 - within the C2PC
 Default folder
 - located on your hard drive
 - located on a

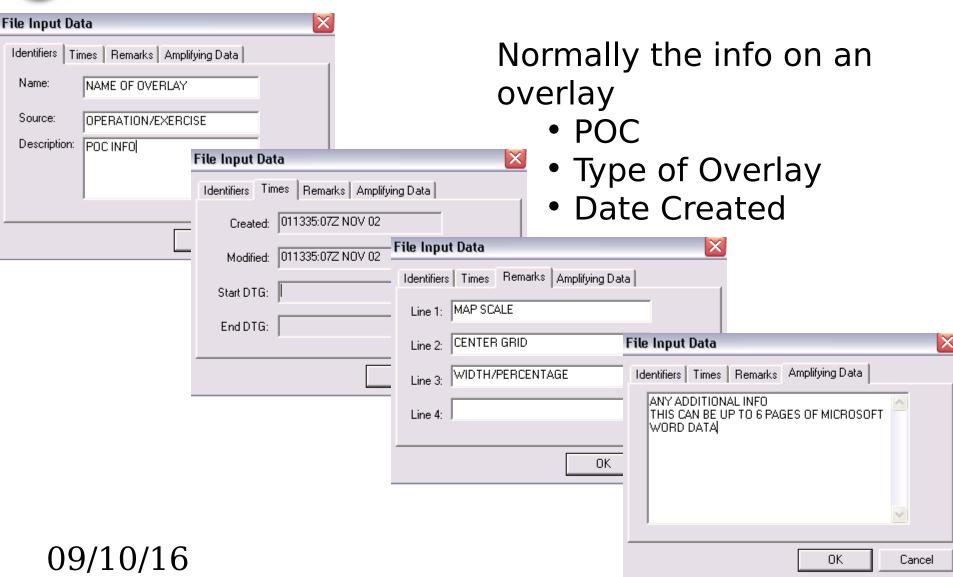
Naming 19/10/16

ing Convention

OVERLAY PROPERTIES





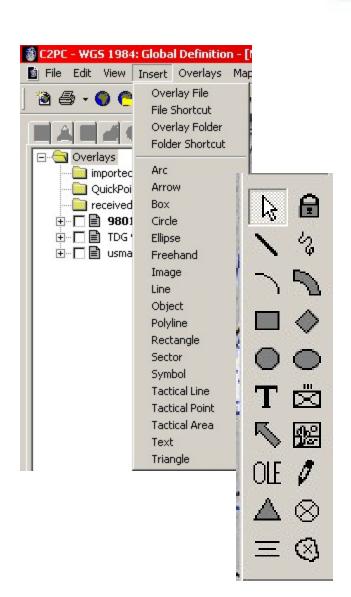


A STATE OF THE STA

ADDING GRAPHICS



- To add Graphics to Overlays you have two choices:
 - the <u>Insert</u> pull down menu
 - the Palette, under the <u>View</u> pull down menu.

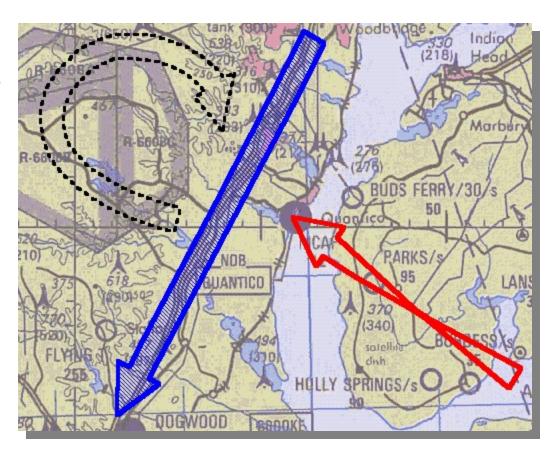




ADDING ARROW



First point is tip of the arrow.

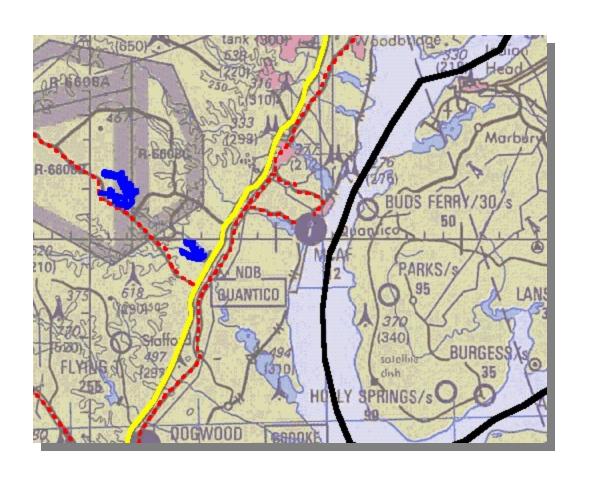


ADDING POLYLINE



Uses of Polylines:

- FSCMs
- LOCs
- Boundaries
- Terrain
- Hydro

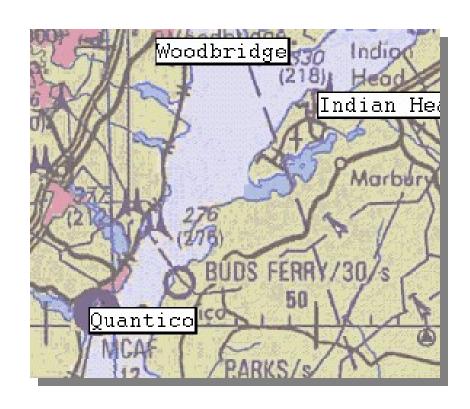




ADDING TEXT



Change text after you place it on the map.



I THE STATE OF THE

ADDING IMAGE



Image is an Icon or Bitmap

Can be used for anything to help clarify the Situation



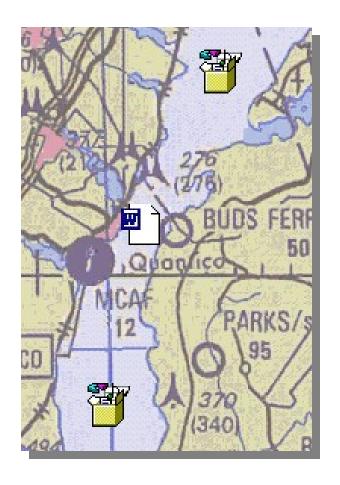


ADDING OBJECT



Can be:

- Wav files
- Videos
- Imagery
- Microsoft docs



ADDING SYMBOL





Symbol come in many sizes

- Huge
- Large
- Medium
- Small
- Tiny

Displayed in numerous ways

- Frame on, Fill on, Icon on
 □ Black or White
- Frame on, Icon on
- Frame on
- Icon on
- Fill on

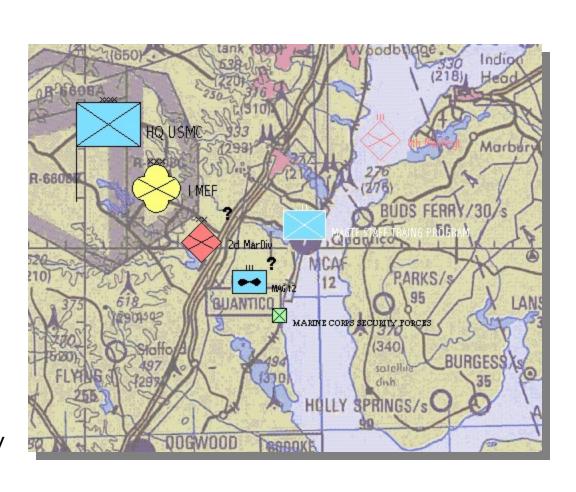
Different affiliations

- Pending / Unknown
- Friendly / Assumed Friendly
- Hostile / Suspect / Joker /

Faker

Neutral

09/10/16

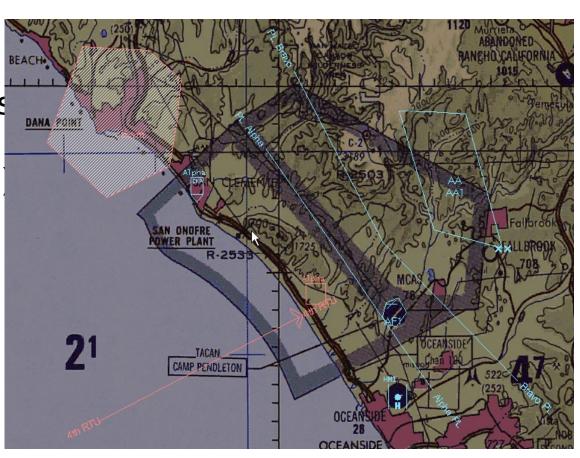


TACTICAL OVERLAYS





- Tactical Overlays
 - -Point (13 Options
 - -Area (9 Options)
 - -Line (22 Options



SAVING AN OVERLAY





- Save feature saves the overlay in the C2PC default folder
- Save As allows you to designate the location



Naming Convention 09/10/16



DISSEMINATION OF OVERLAY



- 1. Exporting/Importing
- 2. Transmitting
- 3. Save As
 - Floppy Disk
 - File Server
 - Web page

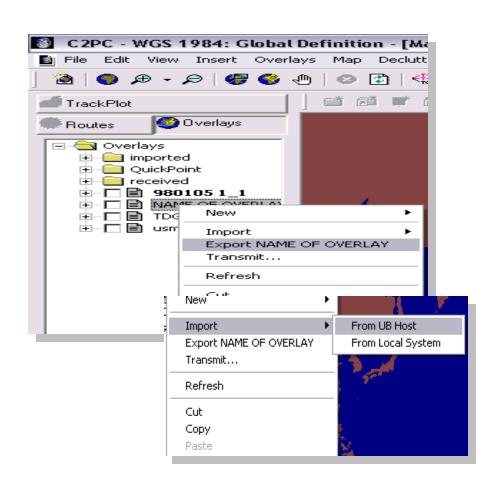
Naming Convention

IMPORTING/EXPORTING





- When importing
 Overlays you can either
 get them from the UB
 Host or from your local
 system. Exporting only
 goes to the UB Host.
- **When Exporting an overlay, you will lose some graphics (embedded objects) and change the appearance of others (arrows).



TRANSMITTING AN OVERLAY

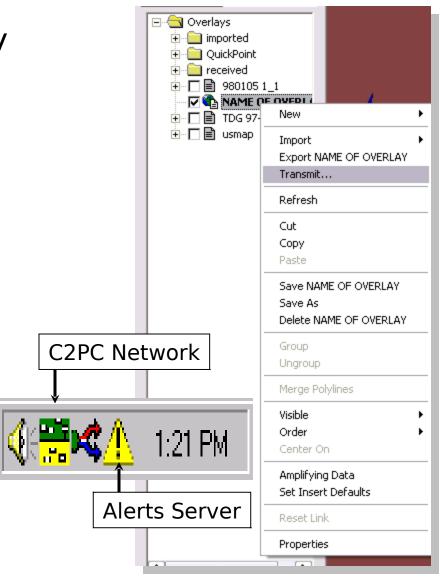




Right click on the overlay file and select Transmit.

Note: You will need to have the IP (Internet Protocol) address of the machine you want to send the overlay.

You can get the IP from your network administrator or call the person on that machine and ask them what their



SETTING UP THE ADDRESS



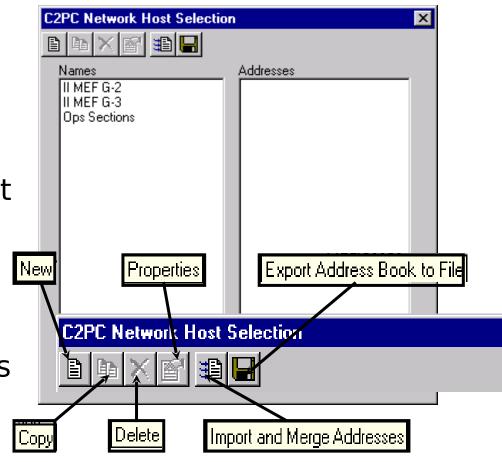
BOOK



 Each entry can represent more than one address.

 Address can also be saved to a file and sent to other users.

 These files can be imported and merged with existing addresses



DECISION SUPPORT TOOL







AND HE SAID THE OBVIOUS POUTE WAS MORE DANGEROUS"

SCHEDULE





Overview

- Purpose_
- What is DSTB
- Terrain Data

<u>Setup</u>

- Data Paths
- Toolbars
- Saving as C2PC Overlays

Performing Terrain Analysis

- Point Analyses
- Line Analyses
- Area Analyses
- User Defined Terrain

PURPOSE





The purpose of this class is to familiarize the user with the functions of the Decision Support Toolbox as well as to produce proficient operators capable of producing intelligence or operational products that are needed to support their units mission.

DSTB





What is DSTB and what does it do?

DSTB is a program which utilizes digital terrain and elevation data to produce terrain and decision point analysis as well as operations and intelligence graphics.

DSTB allows the user to import, manipulate and analyze terrain data to better understand terrain and its effects on friendly and hostile operations in both the offense and defense.

TERRAIN DATA





<u>DTED</u>- Uniform matrix of terrain elevation values which provides basic quantitative data for systems and applications that require terrain elevation, slope, and/or surface roughness information.

*Data that represents the contours of the earth's surface.

VPF- Standard format, structure, and organization for large geographic databases that are based on a georelational data model and are intended for direct use. VPF uses tables and indexes that permit direct access by spatial location and thematic content and are designed to be used with any digital geographic data in vector format that can be represented using nodes, edges, and faces.

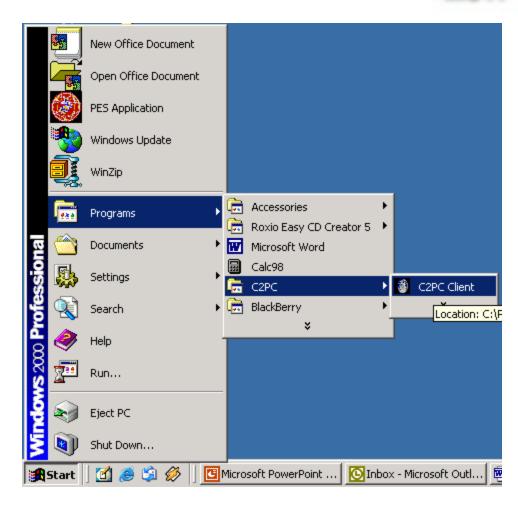
*A map associated with a database which contains information on both man made and natural map features as well as data on vegetations hydrography, etc.

ACCESSING DSTB





Start>>Programs>> C2PC>>C2PC Client.



ACCESSING DSTB





Tools>>DSTB

Result:





SETTING DATA PATHS





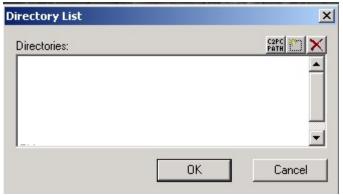
Declutter

Step 1: Go to the **DSTB menu** and select **DTI**

path.

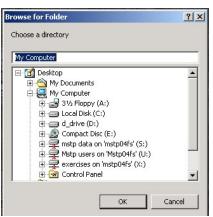
Selector Path
Analyses
Save as C2PC Overlay
Default Settings

Resul t:



Step 2: Select the **new path button** and find the limition of the data.

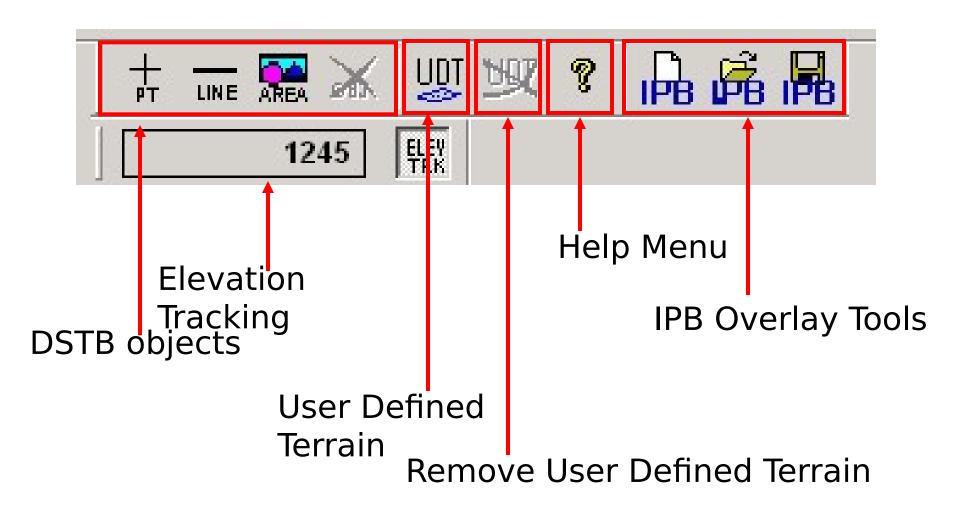
Resul t:



TOOLBAR







09/10/16

MOBILITY TYPES





ARM 1: Highly Mobile Armored Vehicles

M1, M1A1 Abrams

M2, M2A1, M2A2, M2A3 Bradley Fighting Vehicle

M3, M3A1, M3A2 Cavalry Fighting Vehicle

T-72, T-72M, and Chinese T-72 derivatives (Tank)

T-80 Tank

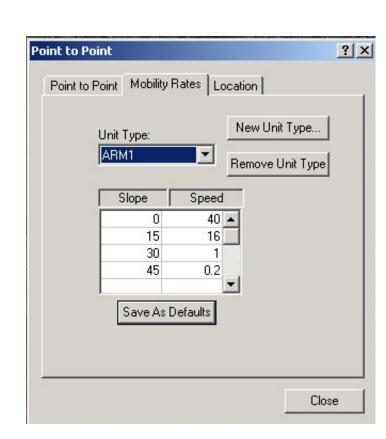
T-90 Tank

BMP-3 (Infantry Fighting Vehicle), and derivatives

Challenger (Tank)

Crusader howitzer

09/10/16



MOBILITY TYPES





ARM 2: Moderately Mobile Armored Vehicles

M60A3 Tank

M113 Armored Personnel Carrier

M109-series Howitzers

T-62 Tank

T-54/55 Tank

BMP-1, BMP-2, and Chinese derivatives

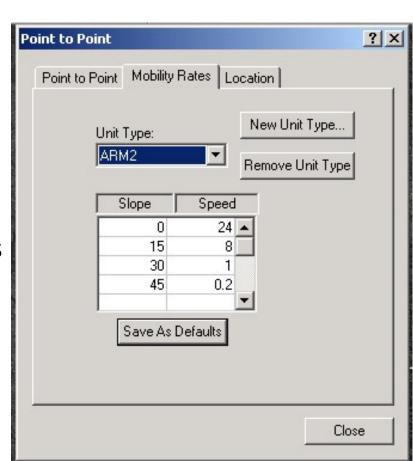
MTLB

T-34 Tank

M-47/M-48 Tank

2S1, 2S3, 2S5, 2S7, 2S9 Howitzers

LVTP/AAV-7 09/10/16



MOBILITY TYPES





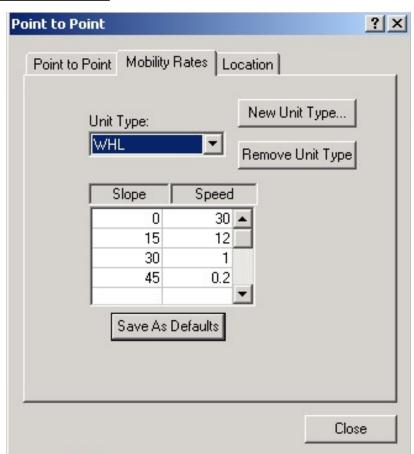
WHL: Wheeled Combat Vehicles

LAV

BTR-60, BTR-70, BTR-80, BTR-90

BRDM

HMMWV

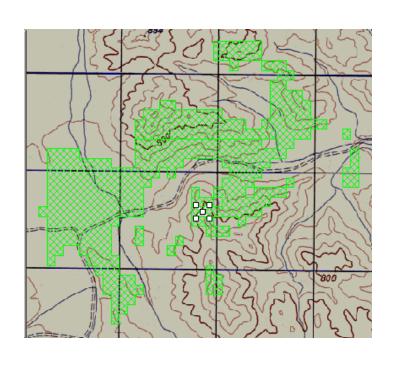


POINT / LINE OF SIGHT





- Recon and Surveillance Planning
 - OP's & LP's
- Communication Planning
 - Relay Sites
- Positioning of Weapon Systems
 - Direct
 - Indirect
- Terrain Masking 09/10/16



POINT / RANGE RINGS





- Gives the user a time-based depiction of where a unit could move in a given amount of time based on terrain.
- Can be customized to take into account other factors of intelligence relevant
 - Different units
 - Unusually Difficult Terra
- Decision Point establishme
 - Rally Points

09/10/16 Points

LINE / POINT TO POINT





- Fastest route between two points. Dependent upon:
 - Echelon
 - Unit Type
 - Percent of Max Speed
- Displays best route based c

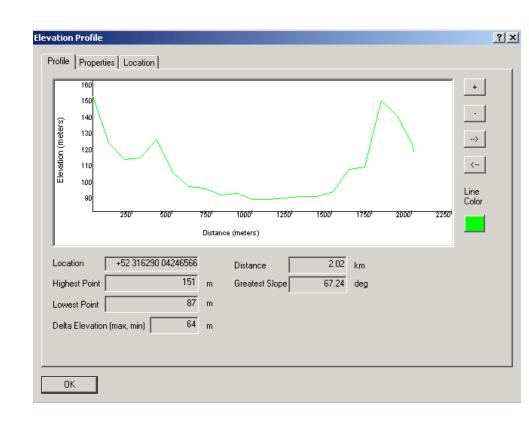




LINE / PROFILE



- Graphically depicts the elevation over the given distance.
- Shown in graph
 format to represent a
 cut away view of the
 earth's surface.





TERRAIN SLOPE SETTINGS



DSTB TermsDoctrinal TermParameters Color

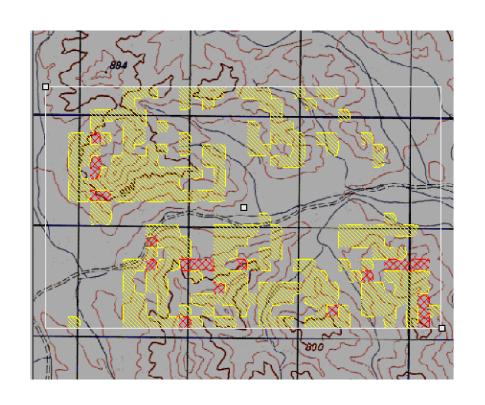
Unrestricted Terrain (UR)	Go	< 15 degrees	
Restricted Terrain (R)	Slow Go	15 degrees	YELLOW
Severely Restricted Terrain (SR)	No Go	30 degrees	RED
Impossible Terrain (SSR)		> 45 degrees	BLACK



AREA / TERRAIN CATEGORIZATION



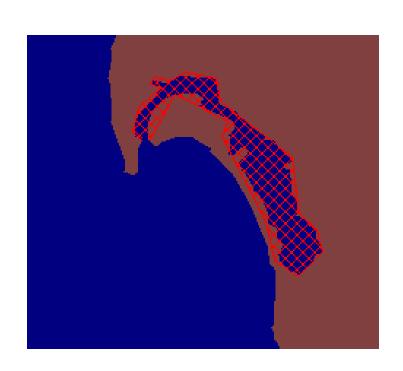
- Allows the user to define Restricted
 Terrain based on Slope.
- Cuts down on time used to create IPB products.



USER DEFINED TERRAIN



- Allows the user to create a designated Terrain Area.
- Used when DTED data does not accurately reflect terrain.
 - Contaminated Areas
 - Minefields
 - Enemy Concentrations
 - Vegetation
- Best performed on a 1:50K
 map.

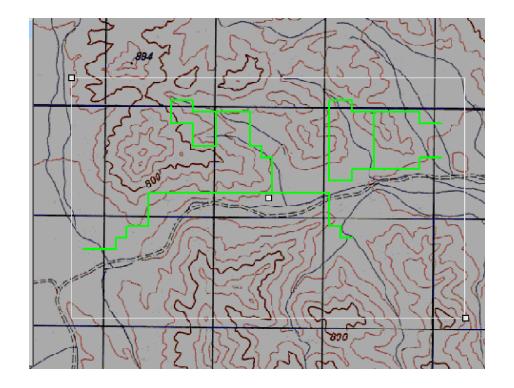




AREA / MOBILITY CORRIDORS



- Corridors based on tactical echelon
- Choke points/Bottle neck establishment



AREA / SLOPES





- Similar to Terrain
 Categorization.
- Does not designate
 Restricted Terrain.
- Depicts degree of slope.
 - Lighter Color depicts
 Steeper ground
- Darker Color depicts
 Flatter ground
 09/10/16

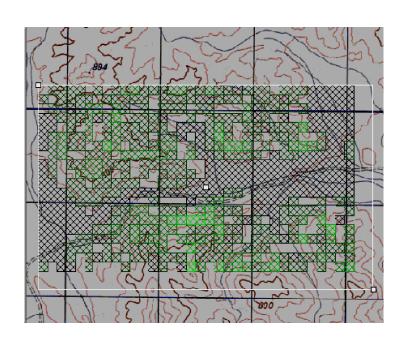


AREA / CONTOURS



- **Elevation Relief Overlay**
- Terrain Masking
- Trafficability for low flying aircraft/helicopters
- Depicts color picture of elevation contour lines .
 - Lighter Color depicts
 Higher ground
 - Darker Color depicts

 Lower elevations



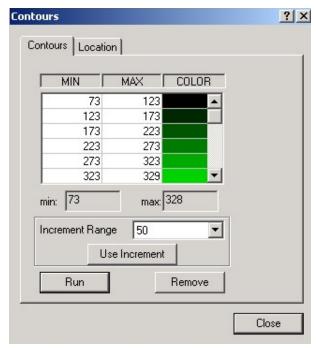
AREA / CONTOURS





- 1. Place an Area
- Go to the **DSTB menu**, select **Contours**.
- Designate the Min and Max Elevation Intervals.
- 4. Designate the color for each **Elevation Interval**.
- 5. Click Run.





SAVING AS C2PC OVERLAYS





User Defined Terrain

Analysis Results

- 1. Have an analysis displayed on the C2PC map.
- 2. Go to the **DSTB menu**, select **User Defined Terrain** or **Analysis Results**.
- 3. The Analysis will be converted to a C2PC overlay file (*.mgc) and sent to the C2PC WGS 1984: Global Definition [Map1.map Flexible D2]

 Default Overlays Folder.

Object Analyses

Save as C2PC Overlay

Default Settings

P DS

SUMMARY





Overview

- Purpose_
- What is DSTB
- Terrain Data

<u>Setup</u>

- Data Paths
- Toolbars
- Saving as C2PCOverlays

<u>Performing Terrain</u> <u>Analysis</u>

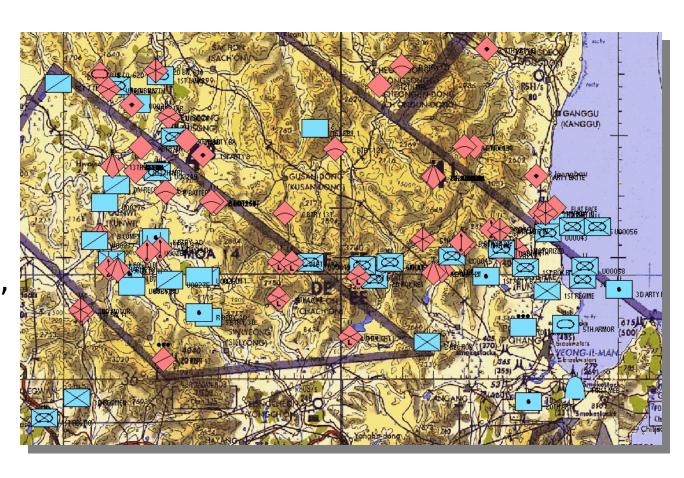
- Point Analyses
- Line Analyses
- Area Analyses
- 09/10/16 User Defined Terrain

TRACKPLOT





- CurrentSituation
- Dynamic
- CTP "Common Tactical Picture"



WHAT IS A TRACK?





- A track appears as a symbol, that represents an active element of the battlespace such as a ship, submarine, land unit, or an aircraft
- Tracks are dynamically plotted on a map background; the tactical display
- Various colors & symbols used to indicate type of object & its threat status

TRACKS VS SYMBOLS





Tracks

- A track represents an <u>active</u> element of the battlespace such as a ship, submarine, land unit, or an aircraft
- Tracks are dynamically plotted on a map background; the tactical display
- Various colors & symbols used to indicate type of object & its threat status
- Used during the Execution Phase 09/10/16

Symbols

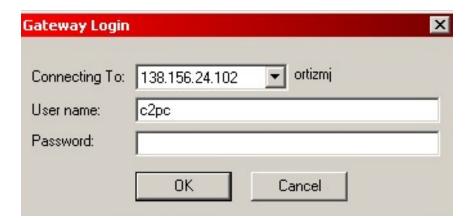
- A symbol represents an element of the battlespace such as a ship, submarine, land unit, or an aircraft
- Symbols are static plotted on an overlay, with map background; the tactical display
- Various colors & symbols used to indicate type of object & its threat status
- Used during both the Planning & Execution Phases



CONNECTING TO GATEWAY



- You will be prompted for a User name and Password for the Gateway.
- Knowing your C2PC
 Gateway Layout will
 help determine the IP
 and User
 Name/Password to
 use.



Received Messages — 5+ Experience			
0			90 sed
-Activity			
Since Disconnected:	000:00:00	Last Msg Received:	000:00:04
Total Connected:	000:00:00	Wait on SR ACK:	000:00:00
Bytes Sent:	104	Bytes Received:	
Status			
Waiting for authenticati	on response		
-₩ GW Filt	er Discon	nect Cancel	Close





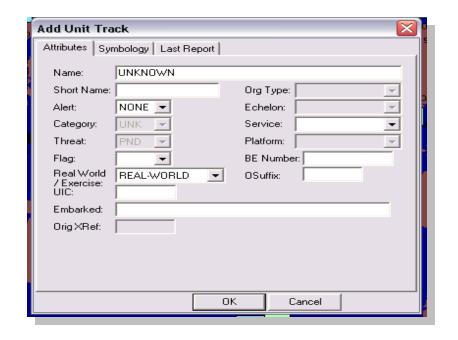
- You have two choices for adding a new track:
- Insert Track allows you to choose what type of track to add
- Quick Insert Track inserts the default track type that you have established.







 Track name and Short name come from either the TACSOP/OpOrder/ MUL

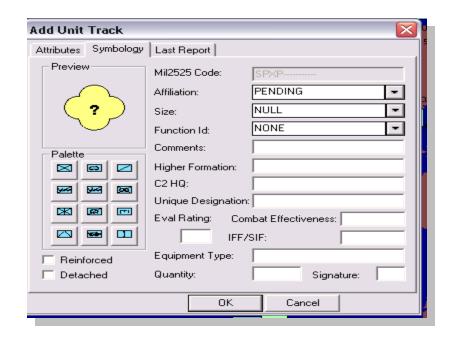


Naming Convention





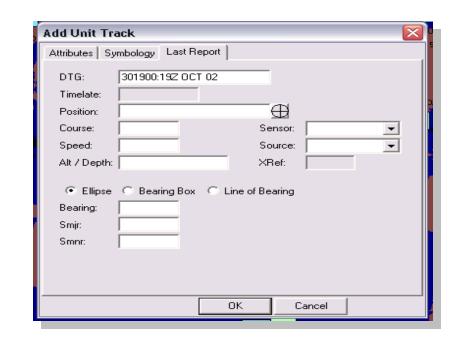
- Affiliation determines the shape & color
- Size determines the characters placed above the symbol
- Function Id determines the look of the icon
- Palette can be customized to fit your most common used Affiliation, Size, and Function Id







- Probably most important tab
- Position location of track
- You can also input Course and Speed



MOVING A TRACK





- You must be logged in to the Gateway with FULL CONTROL
- To move a Track you need to right click on either the symbol or the name in the injector window, then select Quick Report. You will see a familiar window labeled Last Report. Fill in the info and select OK

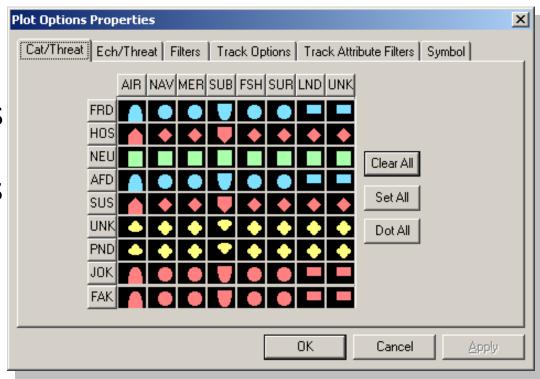


ou need to make sure that the time on your PC and UB Host are synchronized





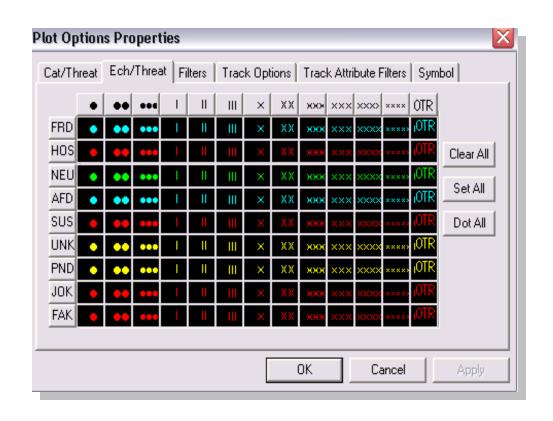
- Cat/Threat Tab controls:
 - Platform Tracks
 - Emitter Tracks
 - Acoustic Tracks
- Display options:
 - Clear All
 - Set All
 - Dot All







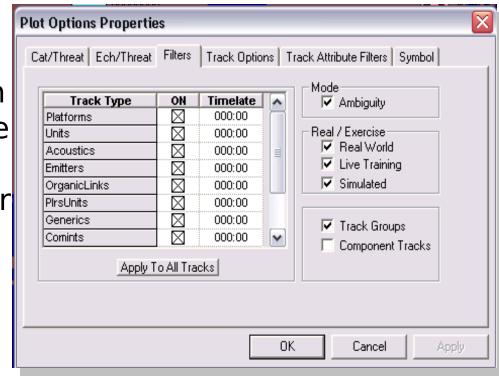
- Ech/Threat Tab controls:
 - Unit Tracks
- Display options:
 - Clear All
 - Set All
 - Dot All







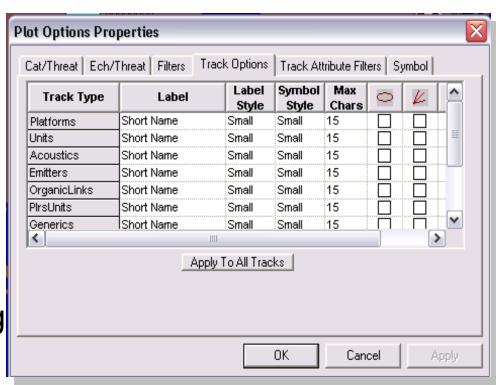
- Filters Tab allows you to filter out tracks that haven't been updated in a certain amount of time
 - 0 to 999 hours
- Also allows you to filter out type/scope of track
 - Real World
 - Live Training
 - Simulated







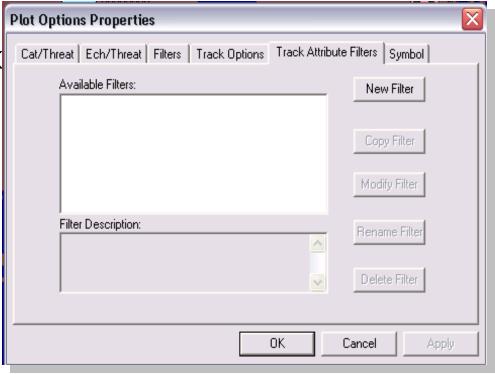
- Track Options Tab affects the visually displaying of tracks
- Additional options
 - Area OfUncertainty (AOU)
 - Ellipse
 - Line of Bearing
 - Bearing Box
 - Range Circles







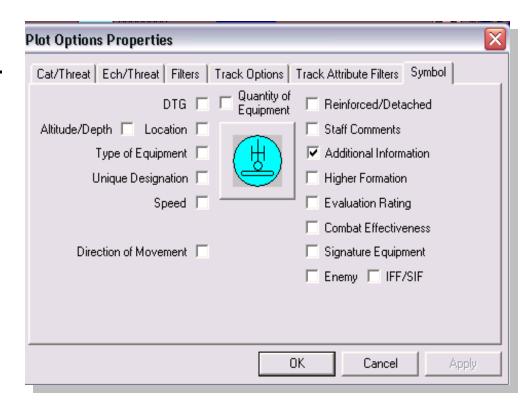
 Track Attribute sets filters for specific track types and their attributes







 Symbol tab controls the display of MIL-STD-2525 track information



SUMMARY





Overview

- What is C2PC
- Main screen

Mapping

Loading maps

Overlays

- Managing/Understanding overlays
- Dissemination of overlays

Trackplot

- Managing/Understanding tracks
- Plot Options
- Tailoring view/Declutter_



QUESTIONS ??



http://www.mstp.quantico.usmc.mil

MAGTF Staff Training Program 2084 South Street Quantico, VA 22134